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EXAMINER	
QURESHI, SHABANA	

ART UNIT	PAPER NUMBER
2155	10

DATE MAILED: 01/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PR9

Office Action Summary	Application No.	Applicant(s)	
	09/490,981	RAGHURAMAN ET AL.	
	Examiner	Art Unit	
	Shabana Qureshi	2155	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 April 2003* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *15 April 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☒ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Supplemental Office Action

Examiner submits this FINAL office action as a supplemental action because the previous Final Office action mailed on 20 June 2003 did not include the rejection of claim 23 in the body of the rejection as required by MPEP 2413.03. The finality of the previous office action is withdrawn. Modification to the previous action has been made.

Response to Arguments

As per Applicant's argument that Spasojevic does not describe or suggest the detecting of Transmit/Receive of data in the transport layer, Examiner asserts that it is well known that transport layer sequences and acknowledges (as shown in Attachment A; lines 4-16 of column 2). Therefore, the acknowledgement data in Spasojevic is done by the transport layer.

As per Applicant's argument regarding the discrimination among events, this feature is not clearly pointed out in the claims. Applicant is arguing matter not included in the claims.

As per Applicant's argument that Spasojevic only applies to peripherals, Examiner points out that Spasojevic discusses storage devices used in networks, which can be hosts or servers (column 2, lines 60-67; column 3, lines 40-53; figure 1).

As per Applicant's argument that Spasojevic traces data at the physical layer and not the transport layer, Examiner asserts that it is well known that transport layer sequences and acknowledges (as shown in Attachment A; lines 4-16 of column 2). Therefore, the acknowledgement data in Spasojevic is done by the transport layer.

As per claim 23, Applicant did not find the limitations to be included in the specification. Examiner considers the contents of claim 23 to be new matter.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 23 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Lines 18-19 of page 4 claim "the method of claim 1 wherein the receipt of data is recorded at the receipt of a first block of data and a last block of data". The receipt of data recorded at specific blocks was not discussed in the specification. If Applicant feels the subject is not new matter, Applicant must make of record the portion of the specification where subject matter is discussed.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C.

122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 4-6, 10, 15, 17, and 18 are rejected under 35 U.S.C. 102(e) as being anticipated by Spasojevic (U.S. 6,269,410 B1).

As per claims 4 and 15, Spasojevic teaches a method of tracing a transmission of data over a computer network comprising:

- detecting a transport-layer request to transmit an input/output packet (column 3, line 54 – column 4, line 47, 'request returns from disk');
- searching the input/output request packet (column 4, lines 33-47); and
- storing in a trace log an entry representing the request (column 5, lines 12-27), wherein the entry comprises the identity of the process (column 4, line 47), and wherein the trace log is accessible to determine the volume of data traveling over a network (column 5, line 3 – column 6, line 8).

As per claims 5 and 17, Spasojevic teaches the method of claims 4 and 15 as stated above, further comprising:

- detecting an acknowledgement of transmission (column 4, lines 35-40); and
- in response to the detection of the acknowledgement, storing in the trace log an entry representing the completion of the transmission . Lines 35-40 of column 4 state that the completion time is recorded "when the request returns from the disk". This shows that completion is acknowledged and recorded.

As per claim 6, Spasojevic teaches a method of tracing a receipt of data from a computer network comprising:

- detecting a transport-layer request to transmit a packet for an input/output connection to a port (column 3, line 54 – column 4, line 47, 'request returns from disk');
- searching the packet to determine the identity of the process that created the packet (column 4, line 47); and
- in response to the detection of a receipt of data at the port, storing in a trace log an entry representing the receipt of the data (column 5, lines 12-27), wherein the entry comprises the process identification, and wherein the trace log is accessible to determine the volume of the data being transmitted over the network (column 5, line 3 – column 6, line 8).

As per claim 10, Spasojevic teaches a facility for tracing data traffic on a network, the facility comprising:

- identifying means for identifying a process causing transport request to transmit data via the network (column 3, line 54 – column 4, line 47); and
- a logging means for logging an event, wherein the event comprises the identification of the process and wherein the logging means is useable to determine the volume of data traveling over the network (column 5, line 3 – column 6, line 8).

As per claim 18, Spasojevic teaches a computer-readable medium having stored thereon computer-executable instructions for performing the steps comprising:

- detecting a transport-layer request to transmit a packet for an input/output connection to a port (column 3, line 54 – column 4, line 47, 'request returns from disk');
- searching the packet to determine the identity of the process that created the packet (column 4, line 47); and

- in response to the detection of a receipt of data at the port, storing in a trace log an entry representing the receipt of the data (column 5, lines 12-27), wherein the entry comprises the process identification, and wherein the trace log is accessible to determine the volume of the data being transmitted over the network (column 5, line 3 – column 6, line 8).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-3, 7-9, 11-14, 16, and 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Spasojevic z(U.S. 6,269,410 B1).

As per claims 1 and 12, Spasojevic teaches a method of tracing data traffic on a network, the method comprising:

- Detecting a transmission or receipt of data to or from a second device on a network (column 3, line 54 – column 4, line 47, 'request returns from disk'); and
- In response to the transmission or receipt being detected (column 4, lines 33- 47), recording the transmission or receipt as an entry in a trace log (column 5, lines 12-27), wherein the trace log is accessible to determine the volume of data traveling over a network (column 5, line 3 – column 6, line 8).

Spasojevic does not explicitly state that these processes occur at the transport layer of a protocol stack, but it would have been obvious to one of ordinary skill in the art at the time the invention was made that the processes occur at the transport layer of a protocol stack of a first device because it is commonly known that the transport layer interfaces with communications to and from other devices.

As per claims 2 and 13, Spasojevic teaches the method of claims 1 and 12 as stated above. Spasojevic does not explicitly state that the protocol stack is a TCP/IP stack. However, it would have been obvious to one of ordinary skill in the art that the protocol stack is a TCP/IP stack because it is TCP/IP stack is a commonly known stack used in the art of network communication.

As per claims 3 and 14, Spasojevic teaches the method of claims 1 and 12 as stated above, wherein the detection step further comprises the step of detecting the presence of an input/output packet representing the transmission or receipt (column 3, line 54 – column 4, line 47).

As per claim 7, Spasojevic teaches the method of claim 6. Spasovic does explicitly state that a connection object representing the opening of the port connection by the process by copying the process identification from the connection object into a transport control block associated with the port and in response to the detection of the receipt of data at the port, copying the process identification into the trace log. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made that the transport control block is fed information from a packet upon arrival at a port, so a connection object is necessary in order to copy the information to a trace log.

As per claim 8, Spasojevic teaches the method of claim 7, but does not specifically state that the process identification is copied from the connection object into the transport control block so that the process identification is contiguous with the rest of the data in the transport control block. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to copy the process id in the same format that the trace log records it so that the logging can smoothly and consistently record the process id.

As per claim 9, Spasojevic teaches the method of claim 8, further comprising:

- detecting the presence of an input/output request packet indicating that the data receipt is complete (column 3, line 54 – column 4, line 47); and
- in response to the detection of the completion input/output request packet, making an entry representing the receipt of the data into a trace log (column 5, lines 12-27).

As per claim 11, Spasojevic teaches the apparatus of claim 11 as stated above, but does not explicitly state that the identifying means further comprises means for communication with the transport layer of a protocol stack. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made that the identifying means would communicate with the transport layer of a protocol stack because it is commonly known in the art that the transport layer interfaces with communications to and from other devices.

As per claim 16, Spasojevic teaches the computer-readable medium of claim 15, having further computer-executable instructions for performing the step of detecting the presence of an input/output packet (column 3, line 54 – column 4, line 47). Spasojevic does not explicitly state that these processes occur at the transport layer of a protocol stack, but it would have been obvious to one of ordinary skill in the art at the time the invention was made that the processes

occur at the transport layer of a protocol stack of a first device because it is commonly known that the transport layer interfaces with communications to and from other devices.

As per claim 19, Spasojevic teaches the computer-readable medium of claim 18. Spasovic does explicitly state that a connection object representing the opening of the port connection by the process by copying the process identification from the connection object into a transport control block associated with the port and in response to the detection of the receipt of data at the port, copying the process identification into the trace log. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made that the transport control block is fed information from a packet upon arrival at a port, so a connection object is necessary in order to copy the information to a trace log.

As per claim 20, Spasojevic teaches the computer-readable medium of claim 18, but does not specifically state that the process identification is copied from the connection object into the transport control block so that the process identification is contiguous with the rest of the data in the transport control block. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to copy the process id in the same format that the trace log records it so that the logging can smoothly and consistently record the process id.

As per claim 21, Spasojevic teaches the computer-readable medium of claim 18, further comprising:

- detecting the presence of an input/output request packet indicating that the data receipt is complete (column 3, line 54 – column 4, line 47); and
- in response to the detection of the completion input/output request packet, making an entry representing the receipt of the data into a trace log (column 5, lines 12-27).

As per claim 22, Spasojevic teaches the method of claim 1, wherein the transmission of data is recorded at the completion of the transmission indicated by an acknowledgement from the first device (column 3, lines 33-47).

As per claim 24, Spasojevic teaches the method of claim 4, but does not specifically state that the identity of the process includes a port number or an IP address relating to the transmission. However, it would have been obvious to one or ordinary skill in the art at the time the invention was made that a port number and IP addresses are recorded when and input/output is detected because the source and destination addresses, as well as the port number is included in the packet.

The amendment filed in claim 23 is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: "the method of claim 1 wherein the receipt of data is recorded at the receipt of a first block of data and a last block of data".

Applicant is required to cancel the new matter in the reply to this Office Action.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shabana Qureshi whose telephone number is (703) 308-6118. The examiner can normally be reached on Monday - Friday, 8:30am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain T. Alam can be reached on (703) 308-6662. The fax phone number for the organization where this application or proceeding is assigned is (703) 746-7239.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Shabana Qureshi
Examiner
Art Unit 2155

SQ
January 13, 2004

HOSAIN ALAM
SUPERVISORY PATENT EXAMINER